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Stagnation Point Flow Over a Stretching Cylinder with Variable Thermal Conductivity and Slip Conditions

Authors : M. Y. Malik, Farzana Khan

Abstract : In this article, we discuss the behavior of viscous fluid near stagnation point over a stretching cylinder with variable thermal conductivity. The effects of slip conditions are also encountered. Thermal conductivity is considered as a linear function of temperature. By using homotopy analysis method and Fehlberg method we compare the graphical results for both momentum and energy equations. The effect of different parameters on velocity and temperature fields are shown graphically.

Keywords : slip conditions, stretching cylinder, heat generation/absorption, stagnation point flow, variable thermal conductivity
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